PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Takayasu FUJIMORI, *et al.*

Docket No: Q68796

Appln. No.: 10/092,592

Group Art Unit: 1712

Confirmation No.: 1083

Examiner: David J. BUTTNER

Filed: March 8, 2002

For: PROCESS FOR PRODUCING POLYCARBONATE RESIN

RESPONSE UNDER 37 C.F.R. § 1.111

MAIL STOP NON-FEE AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Please consider the remarks below in response to the Action mailed November 19, 2003.

Claims 1-4 are all the claims pending in the application.

The Action contains a single rejection. It is presented in detail at page 2 of the Action. Specifically, Claims 1-4 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over EP 1 065 231 ("EP '231") in view of U.S. Patent No. 5,322,919 to Kurosawa, *et al.* ("Kurosawa").

Applicants respectfully traverse.

The evidence of record, including the evidence presented in the specification and the evidence presented in Mr. Takayasu Fujimori's Rule 132 Declaration submitted herewith, serves to rebut any alleged *prima facie* case of obviousness.

EP '231 discloses a process for producing a polycarbonate resin which comprises performing melt polycondensation of PCPDM and carbonic acid diester in the presence of a basic compound catalyst. That is, EP '231's process discloses the use of a basic compound as the catalyst, including alkali metal compounds, alkaline earth metal compounds, nitrogen-containing

compounds, and phosphorous-containing compounds. Pages 4-5, paragraphs [0023] through [0027], page 10, claim 4. The catalysts used in EP '231 are exactly the type of catalysts identified at pages 1-6 of the present application as causing a problem of poor color in the polycarbonate resin product.

As described in detail at pages 1-6 of the present application, when such a basic compound catalyst is applied to the production of a polycarbonate resin from PCPDM and carbonic acid diester, the polycarbonate resin is readily colored during production, so that a polycarbonate resin with good transparency and good color cannot be obtained.

According to the present invention, a polycarbonate resin with good transparency and good color which is not colored during its production can be obtained by applying a catalyst containing at least one compound selected from the group consisting of zinc compounds, tin compounds, lead compounds, zirconium compounds and hafnium compounds to the production of a polycarbonate resin from PCPDM and carbonic acid diester.

Thus, EP '231 does not disclose or suggest the presently claimed catalysts or the advantageous production of polycarbonate resin provided by the claimed catalysts.

The Examiner relies secondarily on Kurosawa to allegedly arrive at the claimed invention. Applicants respectfully submit that a *prima facie* case of obviousness of the present process cannot be established based on EP '231 in view of Kurosawa.

Even if a *prima facie* case of obviousness could be established based on EP '231 in view of Kurosawa, which it cannot, the evidence of record, including the evidence presented in the specification and the evidence presented in Mr. Fujimori's Rule 132 Declaration submitted herewith, rebuts any alleged *prima facie* case of obviousness and establishes the patentability of the presently claimed process.

Kurosawa does not disclose or suggest the combination of PCPDM represented by the general formula (1) and/or (2) and a diol represented by the general formula (3).

Furthermore, in addition to the examples of catalysts disclosed at column 5, lines 51-65 of Kurosawa, Kurosawa also discloses examples of catalysts specifically identified at pages 2-6 of the present application as causing a problem of poor color in the polycarbonate resin product. Thus, Kurosawa provides no motivation for a person of ordinary skill in the art to distinguish between the claimed catalysts and the prior art catalysts. It is completely unexpected from Kurosawa, and from EP '231 in view of Kurosawa, that the presently claimed process, including the claimed catalysts, would produce polycarbonate resins having the superior balance of properties described at the last paragraph of page 26 of the present application.

It should also be noted that the catalysts disclosed in Kurosawa are used to promote the transesterification. Column 5, lines 52-54.

In contrast, in the present invention, the claimed catalysts overcome the disadvantage of coloration of the polycarbonate resin during its production, in addition to promoting transesterification.

The problem of coloration of a polycarbonate resin during its production is essentially different from that of promotion of transesterification. In other words, even if transesterification is sufficiently promoted, coloration of a polycarbonate resin may occur during its production.

Kurosawa does not teach the preferred catalysts for overcoming the disadvantage of coloration of a polycarbonate resin during its production in the production of a polycarbonate resin comprising melt polycondensation of PCPDM, a diol represented by the general formula (3) and a carbonic acid diester. Therefore, there is no motivation from Kurosawa to use the claimed catalysts to overcome the disadvantage of coloration of polycarbonate resin during its production to the production of polycarbonates from PCPDM.

Finally, the evidence of record, including the evidence presented in the specification and the evidence presented in Mr. Fujimori's Rule 132 Declaration, serves to rebut any alleged *prima face* case of obviousness.

The Examiner states at the bottom of page 2 of the Action that "'heat stirring' is not held constant." Accordingly, Applicants direct the Examiner's attention to Mr. Fujimori's Rule 132

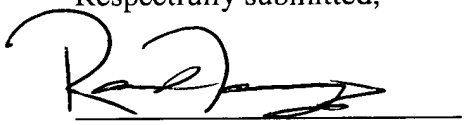
Declaration, including the experimental data therein demonstrating that each polycarbonate resin obtained in Comparative Examples 1-10 is readily colored during its production, even when the same stirring time (reaction time) (40 minutes) is used as in Example 1. As shown in the Declaration, each polycarbonate resin obtained in Comparative Examples 1-10 is readily colored during production.

For the foregoing reasons, Applicants respectfully request that the Examiner reconsider and withdraw the §103 rejection.

Reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, he is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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